REMARKS

Applicants thank the Examiner for the thorough examination given the present application.

Status of the Claims

Claims 1, 3-6, 8-18, and 20-21 are pending in the above-identified application. Claims 10-18 are currently withdrawn from consideration. Support for the amendment to claim 1 and new claims 20-21 can be found in Examples 1, 4, and 6 as well as paragraphs [0033]-[0034] and [0082]-[0085] of the publication of the present application. Thus, no new matter has been added. Based upon the above considerations, entry of the present amendment is respectfully requested.

In view of the following remarks, Applicants respectfully request that the Examiner withdraw all rejections and allow the currently pending claims.

Specification

The title of the invention is allegedly not descriptive (paragraphs 3-4 of the outstanding Office Action). The title is amended herein in accordance with the Examiner's suggestion. As such, this issue is overcome.

Issues under 35 U.S.C. § 103(a)

1) Claims 1, 3, and 8-9 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cuisin et al. in view of Fujikawa et al. and Wen et al. (paragraphs 8-18 of the outstanding Office Action).

2) Claims 4-5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Cuisin et al. in view of Fujikawa et al. and Wen et al. and further in view of Li et al. (paragraphs 19-23 of the outstanding Office Action).

3) Claim 6 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Cuisin et al. in view of Fujikawa et al. and Wen et al. and further in view of Kenausis et al. (paragraphs 24-28 of the outstanding Office Action).

Applicants respectfully traverse. Reconsideration and withdrawal of these rejections are respectfully requested.

Legal Standard for Determining Prima Facie Obviousness

MPEP 2141 sets forth the guidelines in determining obviousness. First, the Examiner has to take into account the factual inquiries set forth in *Graham v. John Deere*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966), which has provided the controlling framework for an obviousness analysis. The four *Graham* factors are:

(a) determining the scope and content of the prior art;

(b) ascertaining the differences between the prior art and the claims in issue;

(c) resolving the level of ordinary skill in the pertinent art; and

(d) evaluating any evidence of secondary considerations.

Graham v. John Deere, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

Second, the Examiner has to provide some rationale for determining obviousness. MPEP 2143 sets forth some rationales that were established in the recent decision of *KSR International Co. v Teleflex Inc.*, 82 USPQ2d 1385 (U.S. 2007).

As the MPEP directs, all claim limitations must be considered in view of the cited prior art in order to establish a *prima facie* case of obviousness. *See* MPEP 2143.03.

Distinctions over the Cited References

The mold of the present invention is a film made from a resist material. A solid substrate is coated with the resist material, and the film has a recessed pattern formed by a lithographic method. According to the present invention, the whole mold is subjected to an oxygen plasma treatment or an ozone oxidation treatment. Then, a metal compound or a combination of an organic compound and a metal compound is brought into contact with the whole mold. Thus, a nanostructural body having a shape corresponding to the shape of the mold is formed.

Cuisin et al. disclose that a "liquid precursor of TiO_2 prepared by the sol-gel method" is merely infiltrated into galleries formed by a lithographic method (last paragraph in the left column of page 3508). Therefore, Cuisin et al. would prefer not to bring the precursor into contact with anything except the galleries. Furthermore, one of ordinary skill in the art would normally consider that improvement of adhesiveness between PMMA and the precursor hinders formation of a desired nanostructural body because the precursor becomes likely to adhere to a part except the galleries.

Further, Wen et al. disclose that the whole polymer material on a substrate is subjected to the oxygen plasma treatment or the ozone oxidation treatment so that adhesiveness between the polymer material and a sol-gel coating on the substrate is increased. Therefore, a simple combination of Cuisin et al. and Wen et al. corresponds to the activation of PMMA of Cuisin et al. In terms of common general technical knowledge, filling the precursors in the galleries only would be difficult.

According to MPEP 2143.01, the combination of references cannot change the principle of operation of the primary reference or render the reference inoperable for its intended purpose. Since the combination of Cuisin et al. and Wen et al. would result in unsatisfactory results, the references should not be combined. Therefore, a *prima facie* case of obviousness has not been established, and withdrawal of the outstanding rejections is respectfully requested.

In contrast, the present invention combines processes which are seemingly mismatching. As a result, the present invention succeeds in easily producing a nanostructural body as shown in Examples 1-6 of the present specification.

As described above, the method according to claim 1 is a combination of techniques which are usually not combined. This method is not disclosed by the cited references. As such, the present invention can easily and accurately obtain a nanosized material in a highly reproducible manner.

For the reasons given above, Cuisin et al. and Wen et al. fail to disclose each and every element of the pending claims. Applicants respectfully submit that Fujikawa et al., Li et al., and Kenausis et al. do not overcome the deficiencies of those two references.

To establish a *prima facie* case of obviousness of a claimed invention, all of the claim limitations must be disclosed by the cited references. As discussed above, Cuisin et al. in view of Fujikawa et al. and Wen et al., with or without the other cited references, fail to disclose all of the claim limitations of independent claim 1, and those claims dependent thereon. Accordingly, the combinations of references do not render the present invention obvious.

Furthermore, the cited references or the knowledge in the art provide no reason or rationale that would allow one of ordinary skill in the art to arrive at the present invention as claimed. Therefore, a *prima facie* case of obviousness has not been established, and withdrawal of the outstanding rejections is respectfully requested. Any contentions of the USPTO to the contrary must be reconsidered at present.

New Claims 20-21

Applicants have newly added claims 20-21 in an effort to further define the scope of protection owed to Applicants. Applicants respectfully submit that claims 20-21 are allowable for the reasons given above. As such, Applicants respectfully assert that claims 20-21 clearly define over the cited references, and an early action to this effect is earnestly solicited.

Conclusion

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Chad M. Rink, Registration No. 58,258, at the telephone number of the undersigned below to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Director is hereby authorized in this, concurrent, and future replies to charge any fees required during the pendency of the above-identified application or credit any overpayment to Deposit Account No. 02-2448.

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Respectfully submitted,

By _____

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